TEACHERS' RETIREMENT BOARD

INVESTMENT COMMITTEE

SUBJECT: General – Investment Education Program | ITEM NUMBER: 6

ATTACHMENT(S): 3

ACTION: ____ | DATE OF MEETING: June 6, 2001

INFORMATION: X | PRESENTER(S): Christopher Ailman

As part three of the new Investment Committee member orientation, the Alternative Investments staff and the Alternative Investment Consultant/Advisor have jointly prepared an overview (Attachment 1) of the alternative investment asset class.

Staff and the Alternative Investment Consultant/Advisor will make an oral presentation based on the attached material.

The Real Estate staff, and Pension Consulting Alliance have also prepared an overview of Characteristics of Real Estate that will be presented to the Committee (Attachment 2). A Glossary of Real Estate Terms is included at the end of the Real Estate presentation and labeled Attachment 3.

CALSTRS

ALTERNATIVE INVESTMENT PROGRAM

The term *alternative investments* in the most general sense includes investments in private equity (i.e., equity investments not traded in the public securities markets) and real estate investments. Hedge fund investments that employ a wide variety of trading strategies are not typically classified as alternative investments; rather, they are classified as alternative investment strategies. The CalSTRS Alternative Investment Program encompasses only the first of these types of investments. What follows is an overview of the different kinds of alternative investments made by CalSTRS, a review of the history of private equity investing and the current private equity environment and a description of how the CalSTRS program is managed and monitored.

Contents

INVESTMENT VEHICLES AND STRATEGIES

A variety of investment vehicles may be used to invest in private equity. In accordance with the Alternative Investment Policy Manual, CalSTRS invests in limited partnerships, co-investments, and secondary interests. Each of these vehicles and strategies is discussed in greater detail below.

Limited Partnerships[1]

Most private equity investment "pools" are structured as limited partnerships. The investment manager assumes the role of general partner with the investors becoming limited partners. As a limited partner, the passive investors benefit from the best of both the corporate and partnership worlds; like a corporate shareholder, the limited partner's liability is limited to the amount of his investment. However, unlike a corporation, the limited partnership's income is not taxed at the partnership level, and income allocated to the limited partners is either taxable or tax-free to each individual partner based on that particular partner's characteristics.

The general partner organizes the limited partnership and has exclusive control over its business activities. Normally, the general partner is a general partnership, limited partnership, corporation, or an individual. There can be more than one general partner. The limited partners are the investors. By definition, they do not participate in the management of the partnership's business. However, they normally have the right to vote to either approve or disapprove certain fundamental decisions made by the general partner.

Capital contributions are normally 99% by the limited partners and 1% by the general partner(s). Installments of capital are paid either at the call of the general partner or on a set schedule spread out over a period ranging typically fom three to five years. In many instances, the general partner will commit to invest capital as a limited partner as well. Limited partners generally take more comfort in a general partner team that commits a higher amount of capital than the 1% industry standard. This is because as the general partner's commitment increases, so does its alignment of interests with the limited partners. Further, although the general partner typically only invests 1% of the capital, it shares in a much larger proportion of the profits, generally around 20%. The potential profit share, or carried interest, is the most important incentive for the general partner to earn the fund high returns.

In addition, the partnership will pay a management fee to the general partner or a company affiliated with the general partner. Ordinarily, this management fee will range from 1% to 2.5% per year of the total amount of capital raised by the partnership (including the general partner's contribution). The management fee enables the general partner to perform the day-to-day administrative operations and act as investment advisor to the partnership.

The partnership term is normally ten years, with the general partner reserving the right (subject to approval by the limited partners) to terminate the partnership early or extend the term of the partnership for a set period of time (generally not more than three additional years). Limited partners normally are not allowed to withdraw before the dissolution and wind up of the

[1] Source: Pathway Capital Management May 6, 1998 presentation to Investment Committee.

partnership. However, there is usually a provision for withdrawal by corporate pension plans should private equity investing ever become prohibited or unduly restrictive under ERISA. CalSTRS is also able to take advantage of this provision by negotiating in its agreements that it desires the same rights as those granted to ERISA investors.

Limited Partnership Strategies

The CalSTRS' portfolio is diversified across a number of limited partnership strategies including venture capital, equity expansion, buy-out, debt related, and international.

Venture Capital: Investments in young emerging growth companies in different stages of development. The stages of venture capital investing include: (1) Seed stage—an entrepreneur seeking capital to conduct research or finish a business plan; (2) Early stage—a company developing products and seeking capital to commence manufacturing; and (3) Late stage---a profitable or near profitable high-growth company seeking further expansion capital.

Equity Expansion: Involve the purchase of substantial, long-term minority equity positions in undervalued, privately or publicly held companies. This strategy is similar in style to later stage venture capital investments, except that equity expansion investments are generally larger, and are typically less technology oriented. These small and medium sized companies have grown from the start-up stage to profitability and are poised for continued rapid growth.

Buyout: Investments made in well-established private businesses that seek private equity capital to effect a change of ownership control, to complete a strategic acquisition, or to change a capital structure. Buyout investments can also be made in transactions associated with corporate divestitures of non-core assets or under-performing subsidiaries.

Debt-Related: Include subordinated debt and distressed debt investment strategies. Subordinated debt is often used to help finance leveraged buy-outs or other similar transactions. Subordinated debt typically takes the form of mezzanine securities, junk bonds, convertible preferred stock, and other high yielding debt-oriented securities. Although considered debt-oriented, securities at the subordinated debt or mezzanine level typically possess equity conversion features, rights, and warrants. Investors at the subordinated debt level are junior to the senior debt holders in a leveraged buy-out transaction, meaning they receive interest payments after the senior debt has been satisfied and they share in a liquidation after the senior paper holders have made their claims. However, subordinated debt suppliers are senior to the common equity holders of the company.

Distressed debt investments are a form of recovery investing that focuses on the debt of a distressed company. Distressed debt investing is defined as the investment in debt securities (generally senior-secured debt) of troubled or bankrupt companies.

International: Includes limited partnerships utilizing an investment strategy with a geographic focus outside of the United States. CalSTRS' Alternative Investment Policies define "international" as the United Kingdom, Continental Europe, and Canada.

Co-Investments[2]

Co-investments offer CalSTRS an additional method of investing in the private equity asset class with typically better economics than CalSTRS receives through limited partnerships. Limited partnerships charge organizational expenses, management fees, and a profit participation. Further, by co-investing with quality investment managers, CalSTRS is able to capitalize on the relationships that it has built with its current investment managers. An important underlying premise, which makes co-investments appropriate, is that CalSTRS knows the underlying investment manager well, and trusts the manager's skills and judgment. The potential downside to co-investments is that CalSTRS may expose itself to a greater degree of risk as compared to a limited partnership that typically invests in many target companies.

Co-investments are generally first offered to large institutional investors who are limited partners in the limited partnership that is making the primary investment in the target company. Most limited partnerships are structured so that there is a cap on the amount of capital that the fund can invest in any one portfolio company. If the general partner identifies an investment opportunity that is too large for the fund, it will typically offer its limited partners an ability to co-invest alongside the fund in the target company.

The co-investment arrangement works well for the general partner since the co-investing limited partner(s) will supply needed capital for the investment opportunity and has the same investment objectives as the fund. The arrangement is beneficial to the co-investing limited partner because it offers the investor the ability to put out a significant amount of capital on favorable terms and rely on the general partner to monitor the progress of the investment and subsequent timing of its realization. The co-investing limited partner is also able to utilize the due diligence efforts of the general partner in making its investment decision.

Secondary Partnership Interests[3]

A secondary partnership interest ("secondary") is an interest in an established private equity limited partnership that is being offered for sale or transfer by an existing limited partner. The secondary can come from an interest being offered in an existing CalSTRS' limited partnership, or it may come from an interest which is currently outside of the CalSTRS' private equity portfolio. Since a secondary comes from an existing limited partnership interest, the fund has closed and has most likely already built a portfolio of investments.

The principal benefits to the purchaser of a secondary are:

- The ability to enhance returns. Internal rates of return are generally higher for secondary interest investments because the money is invested for a shorter period of time.
- Reduced risk because purchasers are able to evaluate the quality of investments made to date, vs. investing in a blind pool of funds.
- The illiquidity of the market combined with the liquidity needs of sellers provide opportunities to purchase secondaries at discounts to market values.

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[2] Source: Pathway Capital Management May 6, 1998 presentation to Investment Committee

[3] Source: Pathway Capital Management May 6, 1998 presentation to Investment Committee/Staff April 2, 2001 presentation to Investment Committee.

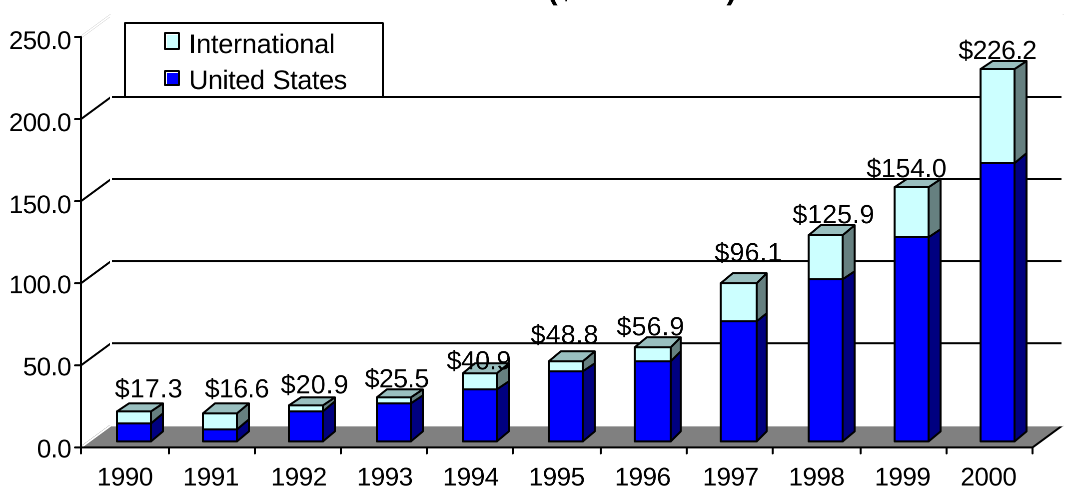
- Reduced performance risk by purchasing funded transactions where principal risk is estimated to be lower.
- Purchase of a series of mature secondary funds enhances diversification of private equity portfolios across vintage years, economic cycles, industries, and geography.

HISTORY

The private equity market began to evolve in an organized fashion in the post-World War II period, but remained a small, informal market until the late 1970s. For the first 30 years of its history, the marketplace was dominated by a handful of wealthy families, financial institutions, and industrial corporations. Pension fund investment in the private equity market did not become significant until the early 1980s. The dramatic growth of pension fund involvement in the private equity market can largely be traced to the 1979 Department of Labor ruling pertaining to the prudent investor rule governing pension fund investing, which stated that prudence would be determined by viewing the portfolio as a whole, rather than by the risk of each individual investment. This important clarification of ERISA, which had been passed in 1974, placed a very important emphasis on diversification in the private equity process and opened the doors for corporate pension plan trustees to invest plan assets in private equity partnerships without violating their fiduciary duty.

As illustrated below, investments in the private equity asset class continued to increase in popularity throughout the 1990s, with record-setting levels of capital raised by alternative investment limited partnerships. The asset class remains in favor among institutional investors; however, some analysts predict that the fund raising cycle may slow down in response to increasingly difficult market conditions.

Annual Worldwide and United States
Alternative Investment Fundraising
($ in billions)



Source: Venture Economics as presented in Pathway Capital Management's Alternative Investment Monitoring Report for the Year 2000

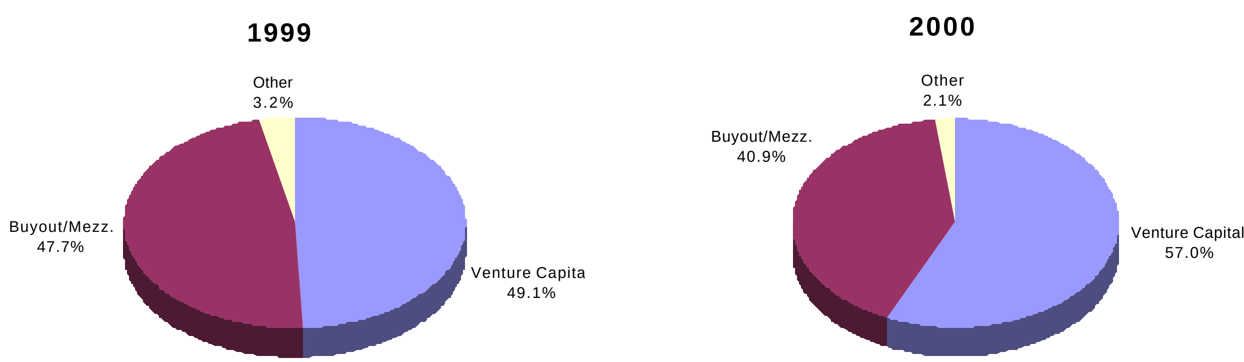
OVERVIEW OF CURRENT ENVIRONMENT

Overall Alternative Investment Environment

As the preceding chart indicates, alternative investment partnerships raised a record $226.2 billion in capital commitments during 2000, setting the ninth consecutive record. This represents an increase of 46.9% in funding over the previous annual record of $154.0 billion, set in 1999. The majority of the capital raised came from U.S.-based alternative investment partnerships, accounting for 75.0% of 2000's total. According to Venture Economics, 1,221 alternative investment funds closed in 2000, up from 854 in 1999.

Of the $226.2 billion raised in 2000, venture capital funds raised $129.0 billion, representing an increase of 70.9% over the previous year. Additionally, buyout funds raised $92.5 billion, an increase of 25.8% over 1999. This represents the first time venture capital funds have exceeded buyout funds in the total amount raised during a calendar year. Over the last few years, venture capital funds have steadily increased their overall percentage of the alternative investment market. The following charts illustrate the breakdown of worldwide alternative investment commitments raised in 1999 and 2000.

Types of Funds Raised in 1999 and 2000
(by Amount Raised)



Source: Venture Economics

Investment Returns for the Alternative Investment Asset Class

There are several explanations for the shift toward venture capital fundraising and away from buyout fundraising. First, venture capital firms have generated returns in excess of those produced by buyout funds. Specifically, venture capital firms achieved a 32.5% return for the one-year period ending December 31, 2000, compared to buyout firms that generated a one-year return of 11.2% for the same time period. Further, venture capital firms have produced stronger returns in each of the time periods indicated in the following table. For the first time ever, venture capital's 20-year return exceeds the buyout 20-year return. These exceptional returns have not gone unnoticed by institutional investors who have been increasing their exposure to this segment in order to capture some of these gains. Over the last 20 years, alternative investment has had a compound annual return of 19.2%.

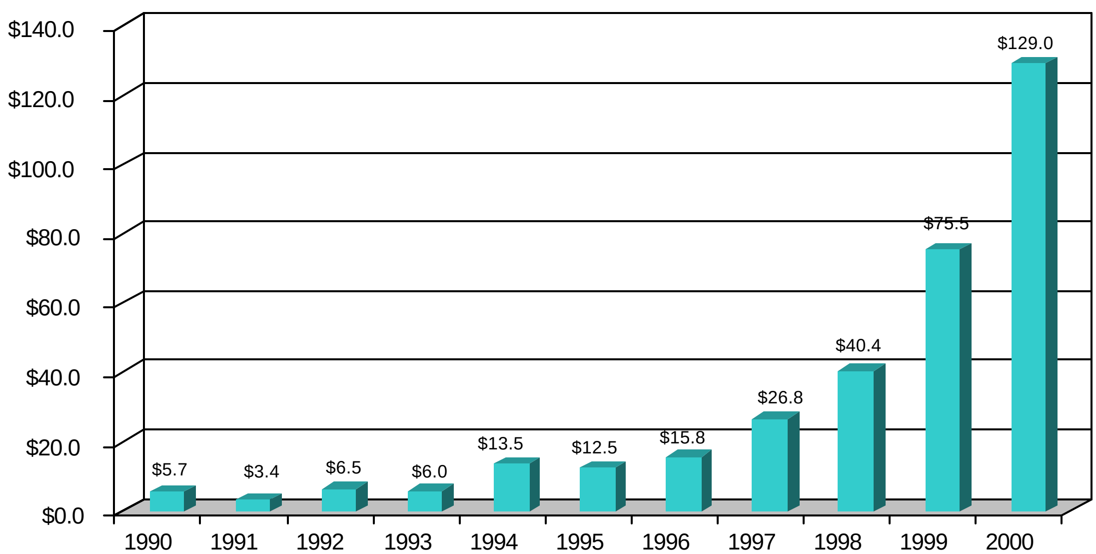
Performance of U.S.-Based Alternative Investment Firms
Through December 31, 2000

Fund Type	1-Year	3-Year	5-Year	10-Year	20-Year
Venture Capital	32.5%	62.5%	46.8%	29.4%	19.6%
Buyouts	11.2%	14.7%	17.4%	16.5%	18.5%
Mezzanine	15.7%	11.1%	11.6%	12.6%	11.9%
Alternative Investments	19.0%	30.1%	28.1%	22.0%	19.2%

Venture Capital Environment

Worldwide venture capital fundraising increased by 70.9% during 2000 as 1,020 funds closed on $129.0 billion. By comparison, 639 funds raised $75.5 billion in 1999. U.S. venture capital firms accounted for 71.5% of the 2000 total, down from 79.4% in 1999. The following chart illustrates annual fundraising levels for venture capital firms over the past eleven years.

Annual Venture Capital Commitments
($ in billions)

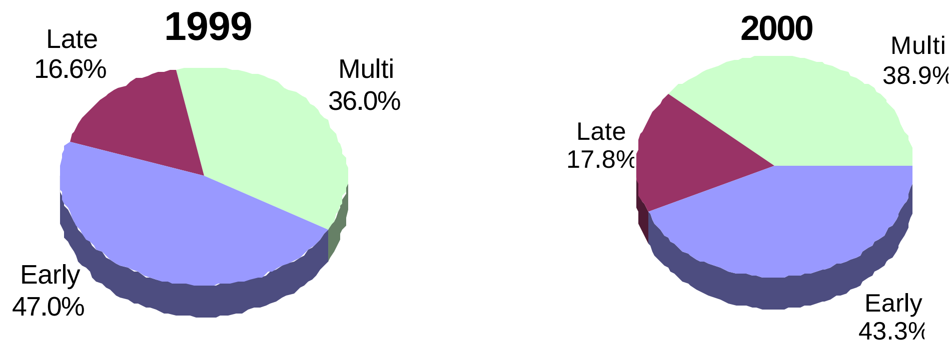


Source: Venture Economics

As illustrated in the previous chart, commitments to the venture capital asset class have consistently increased since 1995, with the largest percentage increases occurring in the most recent years. The emergence of the internet over the past decade has largely contributed to the transformation of the venture capital industry, providing needed capital for capital-intensive technology companies focused on communications, infrastructure, and the digital economy. Existing institutional investors have increased their allocations to venture capital at the same time many new investors have entered the asset class. This combination has resulted in the over-subscription of many well-regarded funds and the emergence of many new venture capital firms.

The breakdown in capital commitments among the different stages of venture capital investing has remained relatively constant between 1999 and 2000. Although early-stage venture capital funds continue to receive the largest percentage of capital, 2000 experienced an increase in technology infrastructure investments that are more capital-intensive and typically funded at later stages. Offsetting the increase in multi- and later-stage investing was a decrease in internet and medical start-up companies. The following charts compare the investment-stage diversification of venture capital commitments made in 1999 and 2000.

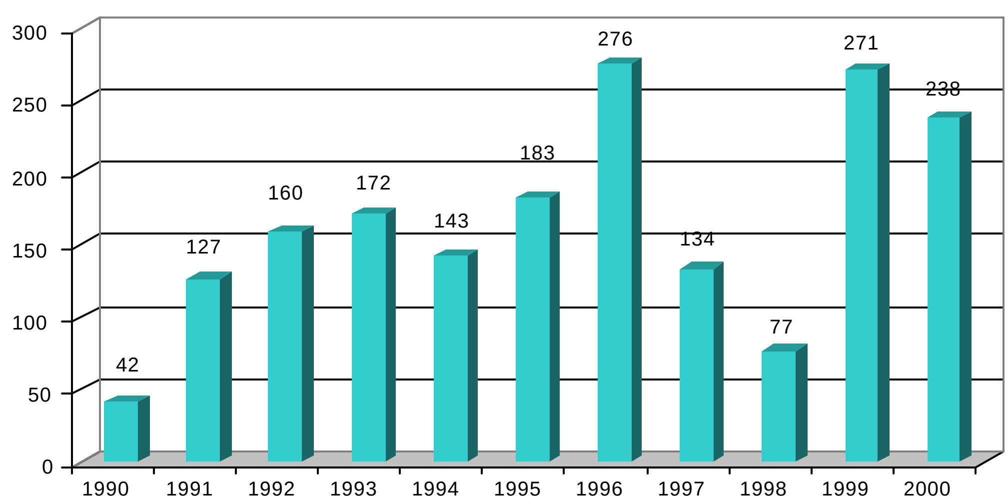
Diversification of 1999 and 2000 Venture Capital Commitments



Source: Venture Economics

During 2000, 238 venture-backed companies went public, representing a small decrease from 1999's level. However, this level of activity does not accurately reflect the market's current sentiment as very few companies were able to complete IPOs in the fourth quarter of 2000. In fact, the fourth quarter produced only 27 venture-backed IPOs, compared to the third quarter total of 81. Over 100 companies postponed or withdrew IPOs in the fourth quarter. Further, this reversal in IPO activity has carried forward into the first quarter of 2001 as the NASDAQ index continued to drop and is now off by 60% from its high setback in March of 2000. The standstill in IPO activity will have a negative effect on venture capital partnerships by lengthening the development time for portfolio companies. Longer holding periods and lower interim valuations will likely mean a moderation in the types of returns witnessed over the past few years.

Number of Venture-Backed IPOs by Year

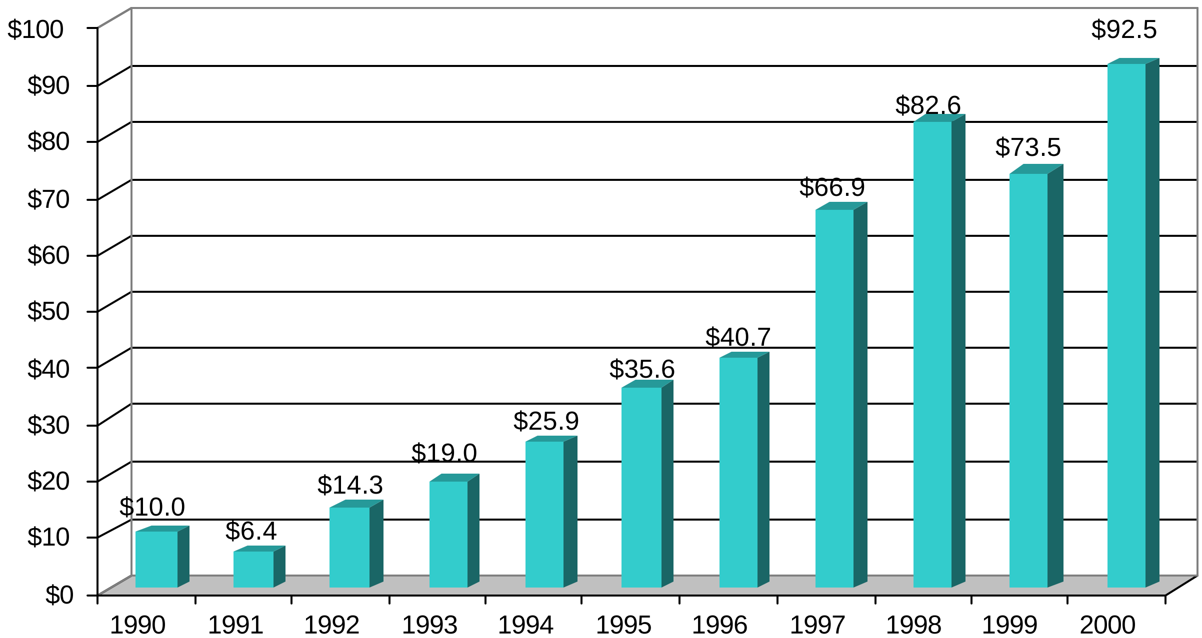


Source: Venture Capital Journal

Buyout Environment

Buyout funds raised $92.5 billion in 2000 setting a new record. This amount is significantly more than the $73.5 billion raised in 1999, but is only 12.0% above the 1998 record total of $82.6 billion. The commitment pace slowed during the second half of 2000 as many institutional investors began reaching their allocation targets for the year. As a result, several buyout groups have delayed additional closings until 2001.

Buyout Fund Commitments by Year
($ in billions)

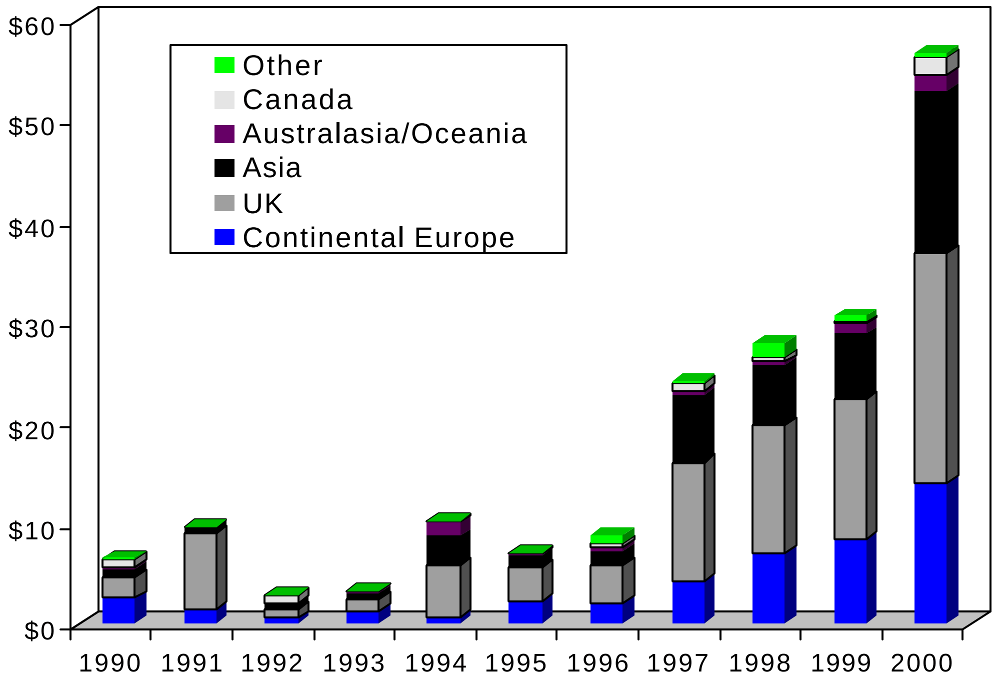


Source: Venture Economics

International Alternative Investment Fundraising

The international alternative investment environment continues to expand at a similar pace to the United States. Continental Europe, Asia, and the United Kingdom continue to dominate the international alternative investment market with 93.5% of total international commitments for 2000. Fundraising by partnerships focused on Continental Europe and the United Kingdom expanded by 65.7% and 64.4% in 2000, respectively. Asian fundraising increased by 149.1% in 2000 compared to 1999 as the currency crisis began to subside in many Asian countries. Further, many U.S.-based alternative investment firms have expanded internationally over the last few years, raising funds concentrating primarily in Europe, but also in Asia. The following chart illustrates the amount of alternative investment capital raised annually since 1990 and shows a continuously increasing commitment pace during the last half of the decade.

International Alternative Investment Fundraising by Year
($ in billions)



Australasia/Oceania includes Australia, Cook Islands, Fiji, Fr Polynesia, Micronesia, Marshall Is., Nauru, New Zealand, Tuvalu, Palau, Papua New Guinea, Somoa, Solomon Islands, Tonga, Vanuatu, Kiribati

Source: *Venture Economics*

International partnerships have generated a 14.3% return over the past 20 years which falls short of the United States' alternative investment returns of 19.2%. Over the last five years though, returns have significantly improved as international alternative investment funds generated a five-year return of 23.8%. This improvement was seen across both venture capital and buyout partnerships.

Performance of International Alternative Investment Firms
Through December 31, 2000

Fund Type	1-Year	3-Year	5-Year	10-Year	20-Year
Venture Capital	22.4%	24.3%	25.2%	15.2%	12.7%
Buyouts	21.0%	30.1%	26.8%	18.9%	18.9%
General	33.4%	23.4%	24.5%	15.3%	13.6%
Alternative Investments	15.6%	23.8%	23.8%	15.7%	14.3%

Source: *Venture Economics*

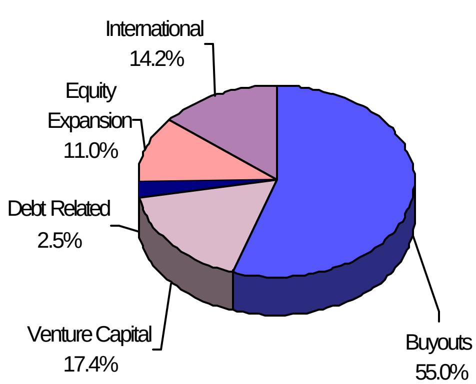
MANAGING RISK

A disciplined approach to the investment process is a key element for managing risk. Staff and the Alternative Investment Consultant/Advisor independently evaluate the risk and return characteristics of each market segment to reduce exposure to over-valued areas while increasing exposure to under-served market segments. In June 1998, the Investment Committee approved ranges and targets, as shown below, for each market segment in the private equity portfolio.

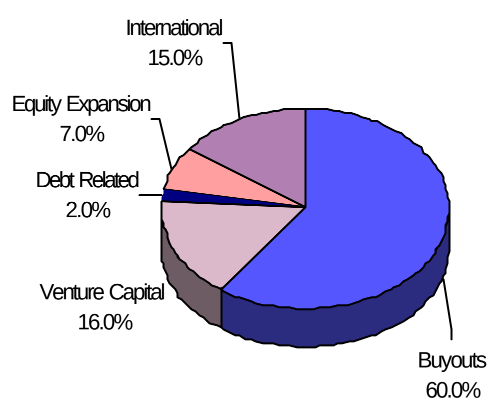
Market Segment	*Market Value Plus Unfunded Commitments ($000s)*	*CalSTRS' Current Exposure As of 3/31/01*	*Long-Term Target Ranges*	*CalSTRS' Target*
Buyouts	5,275,603	54.7%	50-70%	60%
Venture Capital	1,675,442	17.4%	10-20%	16%
Debt-Related	236,859	2.5%	0-10%	2%
Equity Expansion	1,083,038	11.2%	5-15%	7%
International	1,369,772	14.2%	10-20%	15%
Total	9,640,714	100.0%		100%

The following charts show CalSTRS' exposure, as of March 31, 2001, in each of the approved market segments. The current exposure closely parallels approved targets, and is well within the approved long-term ranges.

CalSTRS Exposure



CalSTRS Target



The private equity portfolio is managed in accordance with a comprehensive business plan that is approved by the Investment Committee on an annual basis. In addition, all investments are selected and approved in accordance with approved Policies and Procedures. In order to monitor investments and evaluate the quality of investment selections, the investment performance of the total private equity portfolio is compared against a custom benchmark, and the performance of individual limited partnership investments are compared against the *Venture Economics Benchmark*. These benchmarks are discussed in greater detail later in this report.

As shown in the following chart, selection of the highest quality investment managers in each market segment is the primary component for generating superior returns in the private equity portfolio. Individual investments are selected after staff and the consultant complete extensive, independent due diligence which includes, in part, a comprehensive analysis of the investment strategy, management team, performance relative to an appropriate benchmark, deal flow, and risk concentrations.

10 Year Annualized Returns
December 31, 1997

ASSET CLASS	***FIRST QUARTILE***	***THIRD QUARTILE***	***SPREAD***
US Fixed Income	9.7%	8.5%	1.2%
US Equity	19.5%	17.0%	2.5%
International Equity	12.6%	9.7%	2.9%
Venture Capital	25.1%	3.9%	21.2%

Source: David Swensen, Pioneering Portfolio Management, *Free Press,* 2000.

MANAGER SELECTION

In August 1998 the Investment Committee approved a tiering model which was developed by staff to facilitate management of the Alternative Investment portfolio. The purpose of the tiering model is to create a tool that will assist staff in the on-going monitoring and due diligence process of the Alternative Investment portfolio. Specifically, the tiering model will encourage staff to guide the portfolio toward future investments in its best performing partnerships, and will direct the selection of new partnerships with specific quantitative and qualitative objectives. Tiering will be measured under five main categories:

- Performance history of the partnership
- Investment strategy adherence and investment pace
- Continuity and history of the management team
- Partnership relationship with CalSTRS
- Co-investment ability and corresponding terms

This is accomplished through an on-going monitoring and due diligence process that categorizes CalSTRS' partnerships by tiers.

1. Tier one partnerships are the best performing partnerships with superior investment returns and offering potential for co-investment opportunities.

2. Tier two partnerships are partnerships that do not have a long enough track record to be effectively rated, or partnerships with average investment performance. Improved performance may qualify a Tier two partnership to be moved to the Tier one category.

3. Tier three partnerships are partnerships with poor investment performance. It is unlikely that staff would consider follow-on investments with partnerships that fall into this category.

CALSTRS' CUSTOM BENCHMARK

There is no universally recognized benchmark for alternative investments. Therefore, during 1998, staff developed a customized benchmark for comparative measurement to the alternative investment asset class. The custom benchmark was designed to establish a clear performance objective and to measure the ongoing progress of the investment program.

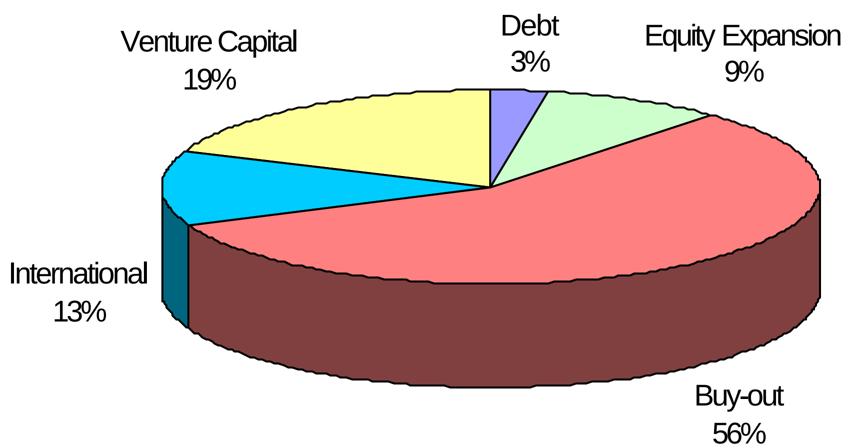
The customized benchmark is a blended, dollar-weighted benchmark comprised of 1) the Russell 3000® Index ("Russell 3000") and; 2) a Treasury bill return for capital contributions less than three years old. A 500 basis point premium is added to this blended benchmark to account for the additional illiquidity and risk involved with private equity.

CalSTRS utilizes the *Venture Economics' Vintage Year Comparison* by generation to measure the performance of each of the individual partnerships in the portfolio. This comparison provides an excellent benchmark by which to evaluate individual managers relative to their respective peer group.

CALSTRS' PORTFOLIO

As of December 31, 2000, the CalSTRS portfolio was invested in 102 limited partnerships, 10 co-investments, and 6 secondaries. As shown in the following chart, these investments are diversified across the following investment strategies: venture capital, equity expansion, buy-out, debt related, and international.

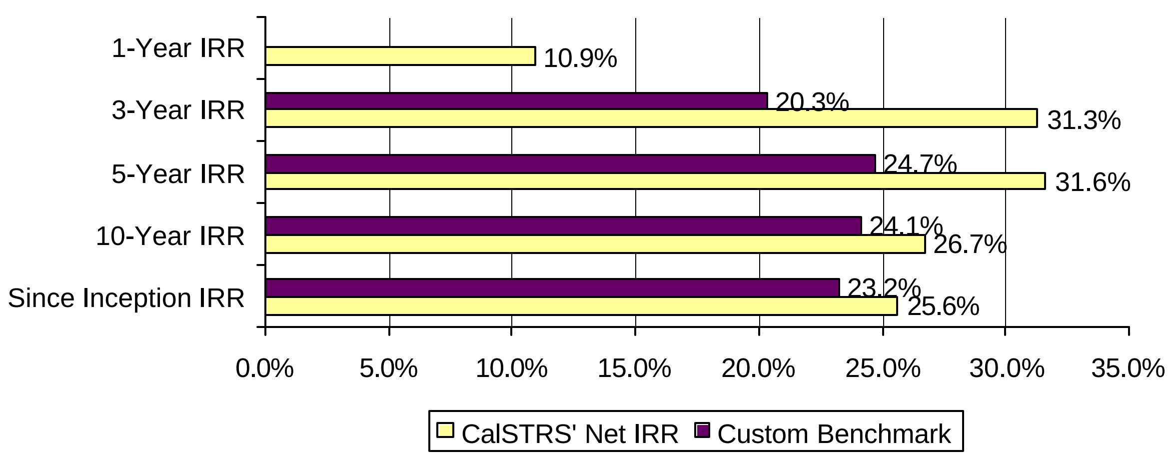
Investment Strategy Diversification
(Market Value of Investment Strategy plus Unfunded Commitments[1])
as of December 31, 2000



[1]Buy-out segment includes co-investment and secondary investments

The following chart illustrates CalSTRS' 1-year, 3-year, 5-year, 10-year, and since inception returns as of December 31, 2000 relative to the custom benchmark. As of December 31, 2000, the Alternative Investment portfolio generated a 25.6% net internal rate of return (IRR) vs. the custom benchmark IRR of 23.2%. Additionally, the CalSTRS portfolio outperformed the custom benchmark in each of the respective time periods.

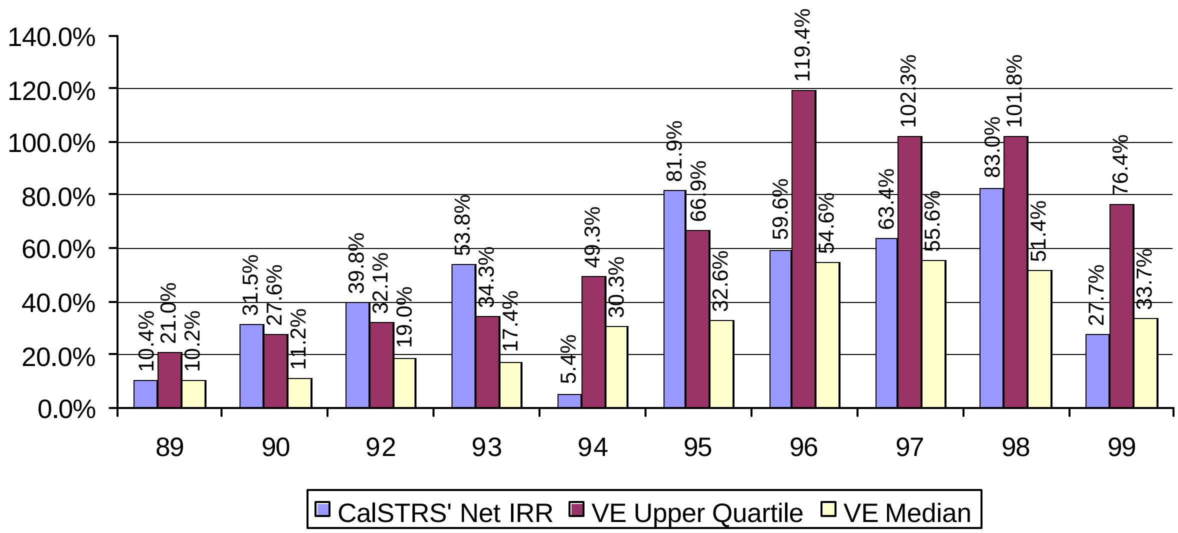
CalSTRS' Net IRR vs. Custom Benchmark[1]
as of December 31, 2000



Source: Pathway Capital Management
[1]1 Year IRR not available for Custom Benchmark

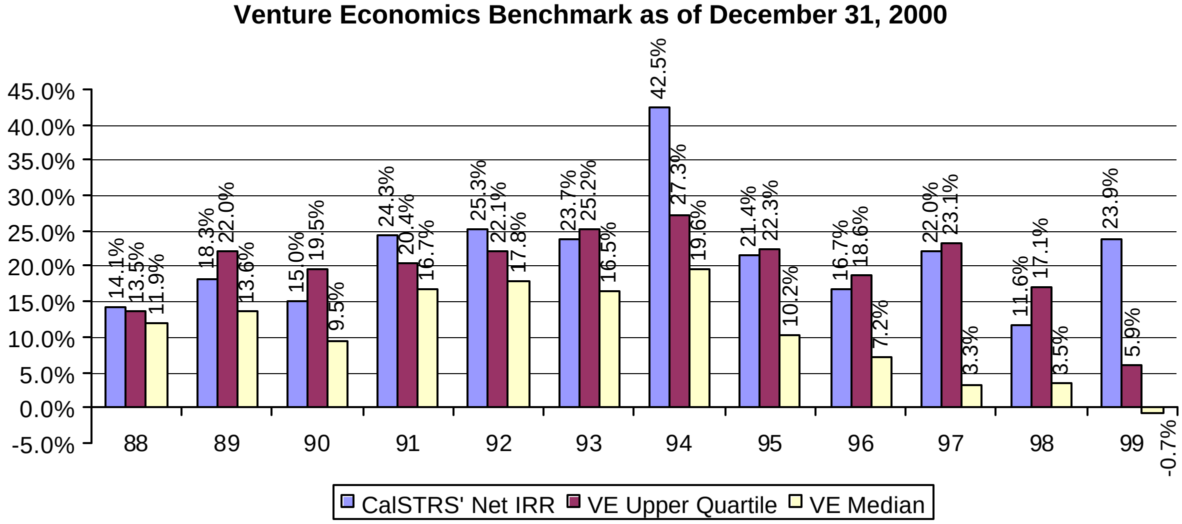
For purposes of simplicity, CalSTRS' portfolio can be classified into two subsets: venture capital and special equity. The performance of each of these subsets relative to the *Venture Economics Benchmark* is shown below.

Venture Capital Partnership Vintage Year Performance vs. Venture Economics Benchmark as of December 31, 2000



As illustrated above, the CalSTRS' venture capital portfolio outperformed the upper quartile of the *Venture Economics* Benchmark in four out of ten periods (1990, 1992, 1993, and 1995), and outperformed the median benchmark in all but two periods (1994 and 1999). CalSTRS did not make any commitments to venture capital funds established in vintage year 1991.

Special Equity Partnership Vintage Year Performance vs. Venture Economics Benchmark as of December 31, 2000



The CalSTRS' special equity portfolio outperformed the upper quartile of the *Venture Economics* Benchmark in 5 of 12 periods (1988, 1991, 1992, 1994, and 1999), and outperformed the median benchmark in all 12 periods.

GLOSSARY OF TERMS

Acquisitions

See Leveraged Buyouts.

Acquisitions – Add on

Add-on acquisitions, or platform investing, is a growth strategy, which involves the acquisition of a company that will be the base (or platform) from which future acquisitions will be made. This strategy invests in consolidating industries by teaming with key industry management to build companies through acquisition and internal growth. Initially, an industry with an unrecognized market niche, high growth potential and no clear market leader is identified. If a suitable company cannot be identified, the investment manager may recruit a management team to run the new business. The company's management and the investment manager, acting as a team, will identify and negotiate to buy additional companies within the target industry. A "critical mass" is achieved when the investment manager consolidates formerly entrepreneurial-managed, fragmented operating units into a single portfolio company with standard operating procedures. As a result, the larger company becomes visible and attractive to a wider group of potential buyers. Other companies in the market typically are willing to pay a higher price earnings multiple to buy the portfolio company than paid by the investment manager for its component parts.

Advisory Board

Advisory Boards play a role in the governance issues relating to the fundamental aspects of the fund, such as decisions on valuations and management conflicts of interest. Generally, a majority of the Advisory Board is comprised of the largest limited partners in the limited partnership.

Aggregation of profits and losses

Aggregation of profit and losses ensures a fairer profit sharing between the general partner and the limited partners. This calculation is based on the entire performance of the portfolio rather than on a deal by deal basis.

Buyouts

See Leveraged Buyouts.

Carried Interest

The mechanism by which general partners are compensated for their performance. The general partner's carried interest is its share of the partnership's profits, and generally ranges from 10% to 30% of the total. A 20% carried interest has become the industry norm.

Co-investments

Privately negotiated purchase of equity or quasi-equity from private or publicly traded entities. Such investments involve the purchase of non-registered securities, which by their private, illiquid nature command a premium over comparable publicly traded securities. These are not stand-alone investments and will always be made alongside a partnership investment on pari-passu, or better terms, than the partnership is making its direct investment.

Convertible Preferred Stock

A class of stock having different rights than common stock, including a liquidation preference over common stock; and allowing the preferred shareholder to convert preferred shares into common shares at some specified conversion ratio. Conversion typically occurs in conjunction with an initial public offering, providing a means of liquidation for the preferred shareholder.

Direct Investments

Direct investments are similar to co-investments in that the investment is made outside a limited partnership structure, and made directly in the target company. However, direct investments differ from co-investments in that they are not made alongside an existing partnership. Direct investments require a greater level of due diligence, a greater amount of time to pursue and perform due diligence, and also involve a greater level of risk in comparison to co-investments.

Debt-Related Investment Strategies

Debt-related investments include subordinated debt and distressed debt investment strategies. Subordinated debt is often used to help finance leveraged buyouts or other similar transactions. Subordinated debt typically takes the form of mezzanine securities, junk bonds, convertible preferred stock, and other high yielding debt oriented securities. Although considered debt-oriented, securities at the subordinated debt or mezzanine level typically possess equity conversion features, rights, and warrants. Investors at the subordinated debt level are junior to the senior debt holders in a leveraged buyout transaction, meaning they receive interest payments after the senior debt has been satisfied and they share in a liquidation after the senior paper holders have made their claims. However, subordinated debt suppliers are senior to the common equity holders of the company.

Distressed debt investments are a form of recovery investing that focus on the debt of a distressed company. Distressed debt investing is defined as the investment in debt securities (generally senior-secured debt) of troubled or bankrupt companies. Also see Restructuring/Recovery investments.

Distressed Debt

See Debt-Related Investment Strategies

Distributions

Cash and/or securities paid out to the limited partners from the limited partnership.

Equity Expansion

Equity expansion investments involve the purchase of substantial, long-term minority equity positions in undervalued, privately or publicly held companies. This strategy is similar in style to later stage venture capital investments, except that equity expansion investments are generally larger, and are typically less technology oriented. These small and medium sized companies have grown from the start-up stage to profitability and are poised for continued rapid growth.

First time Limited Partnerships

All funds not identified as follow-on.

Follow-on Limited Partnerships

The second and all subsequent funds raised by a management team that are included in CalSTRS' portfolio and rated as Tier 1 or Tier 2. Funds formed by a management team that had substantial changes in the investment team and/or their investment strategy and/or scope of their business from domestic to international will not be classified under this category.

General Partner

Managing partner of a limited partnership responsible for performing the day-to-day administrative operations of the partnership and acting as investment advisor to the partnership. The general partner typically invests 1% of the capital and retains 20% of the profits.

Hurdle rate

A rate of return that must be met before the General Partner can share in the carried interest.

Initial Public Offering "IPO"

The sale or distribution of stock in a portfolio company to the public for the first time.

Internal Rate of Return (IRR)

The discount rate at which the present value of future cash inflows from an investment equals the cost of the investment. Stated another way, the IRR is the discount rate that equates the present value of the cash outflows (the cost of the investment) with the present value of the cash inflows (returns on the investment). Internal rate of return is generally used to measure the rate of return for private equity investments because the cash flows for these investments tend to be uneven and irregular.

International Buyout

An international buyout fund is a limited partnership that generally focuses on acquisition, equity expansion, or later stage investment strategies with a primary geographic focus outside the United States.

J-Curve

The J-curve phenomenon refers to a graph of the internal rate of return of a partnership against time over the life of the partnership. During the early years of a partnership, an investor can ordinarily expect negative returns and cash flows. The returns are negative because cash is being called to invest in portfolio companies and to pay management fees. Because portfolio company investments are usually held at cost during the early years of a partnership, partnership IRRs in the early years tend to be negative due to the expense of management fees. Later on, as portfolio companies are written up in value and realizations begin to occur, the IRR turns around and begins to rise. As a greater number of realizations is achieved, the IRR and cash flow become positive. A graph of the partnership IRR against time generally resembles the letter J, hence the term "J-curve".

Just in time capital call

The practice is to take capital calls as needed on a transaction per transaction basis.

Key man provision

Limited partners are demanding the right to suspend the funding of the partnership if some of the key people were to leave the firm. This provision is designed to assure the continuity of the firm, and to assure that success (if related to various individuals) stays within the firm.

Leveraged Buyouts (Acquisitions)

Acquisitions involve the purchase of all or part of the stock or assets of a company utilizing a significant amount of borrowed capital and a relatively small portion of equity capital. Borrowed capital typically consists of some combination of senior and subordinated debt. The company may be privately or publicly owned, or a subsidiary or division of a privately or publicly owned company. Acquisitions generally include companies with stable cash flows, high market share, and high profit margins, selling low or non-technology products in industries not subject to wide profitability swings.

The general goal behind an acquisition investment is to acquire a company, division or subsidiary that is currently undervalued, and whose assets may be underutilized, and restructure and revitalize it. Ideally, the revitalized company can then be sold, recapitalized, or taken public at a substantial premium to its pre-buyout value.

Limited Partner

The investors in a limited partnership, generally providing 99% of the capital and receiving 80% of the profits. Limited partners do not participate in the management of the partnership's activities. However, they normally have the right to vote to approve or disapprove amendments made to the limited partnership agreement.

Limited Partnerships

Organization made up of a General Partner, who manages the operations, and limited partners, who invest capital but have limited liability. Limited partners are not involved in the day-to-day management of the partnership and generally cannot lose more than their capital contribution.

Lookback Provision

The lookback guarantees that the stated profit allocation is met at the end of the partnership's term with respect to the limited partners.

Management Fees

The management fee is designed to compensate the general partner. This fee is used to provide the partnership with such resources as investment and clerical personnel, office space, and administrative services required by the partnership. Generally, the fee ranges from 1.5% to 3.0% of capital commitments.

Mezzanine (Also see Subordinated Debt)

Mezzanine investments are in unsecured or junior obligations in financing. They typically earn a current coupon or dividend and have warrants on common stocks or conversion features to enhance returns.

Multiple of Money

Multiple of money is often used to measure performance. This is a cumulative return, identifying the return on an investment over the term of the partnership. A multiple that is greater than one indicates that the partnership's total value exceeds the amount of capital contributed to date, whereas, a multiple less than one indicates that the partnership's total value is less than the amount of capital contributed.

Natural Resources

These investments utilize investment strategies that derive their return from the management of and the independent price movements in a particular resource. These investments are more specialized with a corresponding increase in risk. Sub-categories of this group include Oil and Gas – provides funding for the purchase or development of energy producing properties or companies operating within that sector, and Timberland/Farmland – provides funding for the purchase, development and/or lease of land for both growth and income-oriented strategies.

New Limited Partnerships

All funds not identified as Follow-On.

Oil and Gas

See Natural Resources

Partnership Expenses

Expenses borne by the partnership including costs associated with the organization of the partnership, the purchase, holding or sale of securities, and legal and auditing expenses.

Partnership Term

The term of the partnership is normally ten years, with the general partner reserving the right to terminate the partnership early or extend the term for a set period of time. This is generally subject to the approval by the limited partners.

Portfolio Companies

Portfolio companies are any of the companies in which the private equity partnerships have an investment.

Restructuring/Recovery

Recovery investments involve the investment of capital in companies experiencing anywhere from relatively minor, to extreme difficulties, to companies involved in bankruptcy proceedings. Recovery investing takes advantage of discounted securities of unhealthy, bankrupt (or near), under-performing, and/or under-capitalized companies and either ride or steer them back to recovery. To accomplish this goal, the various funds available use a variety of strategies. The strategies vary by the activity level and/or degree of control required by the acquirers, types of securities utilized, and the relative health of the target companies sought (from bankrupt to nearly healthy). Also, like LBO and venture capital managers, managers of ailing company funds each have a particular target company size preference, and some have industry or sector preferences.

Distressed debt investments are a form of recovery investing that focus on the debt of a distressed company. Distressed debt investing is defined as the investment in debt securities (generally senior-secured debt) of troubled or bankrupt companies.

Secondary Limited Partnership Interests

Privately negotiated purchase of limited partnership interests or investment company interest. Such investments involve the purchase of a pro-rata ownership of non-registered securities, which are currently in, or will be a future purchase of, the partnership portfolio.

Special Equity

See all non-venture capital related investment strategies, such as Leveraged Buyouts, Acquisitions, Special Situations, Mezzanine Investments, Subordinated Debt, and Natural Resources.

Subordinated Debt

See Debt Related investment strategies.

Timberland/Farmland

See Natural Resources

Transaction Fee Offsets

Transaction fee offsets are designed to reduce or eliminate management fees and align the actions of the general partner whose aim is to generate high capital gains, and not to earn additional fees for the firm. The general provision is that the earned fee will reduce the limited partners' management fees.

Venture Capital

Venture capital refers to investments in young, emerging growth companies in different stages of development. The stages of venture capital investing include the following: Seed Stage – an entrepreneur seeking capital to conduct research or finish a business plan; Early Stage – a company developing products and seeking capital to commence manufacturing; Late Stage – a profitable or near-profitable high growth company seeking further expansion capital. The common theme underlying all venture capital investments is the high-growth nature of the industries in which the investee companies operate and the active role played by the investor to identify additional management expertise and provide general business advice.

Venture Economics

Venture Economics is the leading compiler and publisher of private equity investment data. Accordingly, Venture Economics compiles data from venture capital limited partnerships formed from 1969 to 1999, and buyout and mezzanine funds formed between 1976 and 1999. With this data, Venture Economics computes the internal rates of return (IRRs) on a vintage year basis including pooled, upper, median, and lower quartile returns for each sub-category.

Upper Quartile – The point at which 25% of all returns in a group are greater and 75% are lower.

Median – The mid-point of all returns in a group, with half of the sample returns less than the median and half of the sample returns greater than the median.

Lower Quartile – The point at which 75% of all returns in a group are greater and 25% are lower.

Pooled Returns – The pooled return is calculated by treating all funds as a single fund or "pool" by summing their monthly cash flows together. This cash flow series is then used to calculate a rate of return, known as the "pooled return". This method implicitly creates an investment-weighted return and most closely matches the method used by investors to measure the return on a portfolio of investments.

Vintage Year

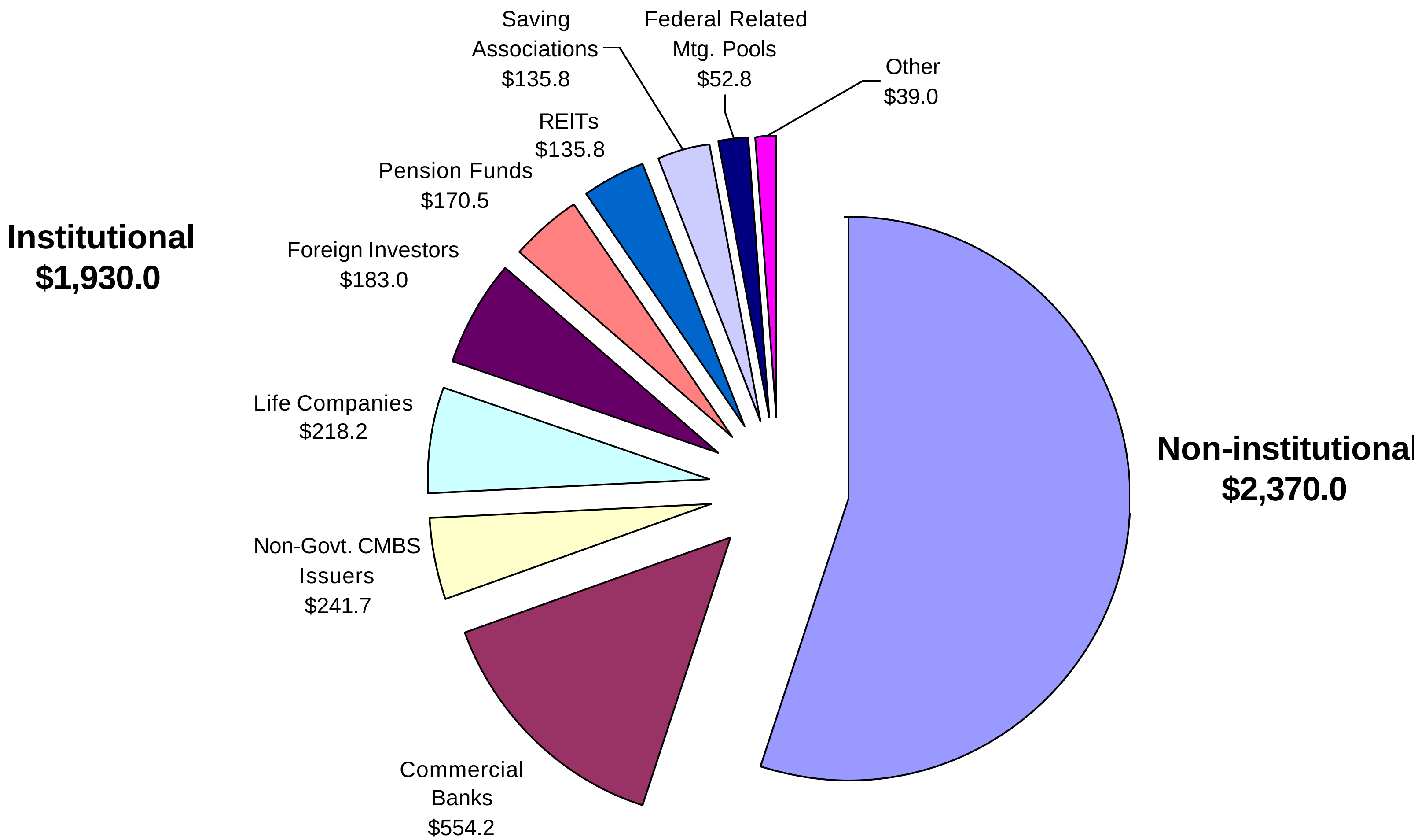
The year of fund formation and its first takedown of capital. By placing a fund into a particular vintage year, the limited partner can compare the performance of a given fund with all other similar type funds formed in that particular vintage year. In addition, that vintage year return can then be compared to an industry benchmark which is provided by Venture Economics.

Characteristics of Real Estate

CALSTRS Investment Committee

June 6, 2001

Size of the Real Estate Market



TOTAL U.S. REAL ESTATE: $4.3 TRILLION (as of September 15, 2000)

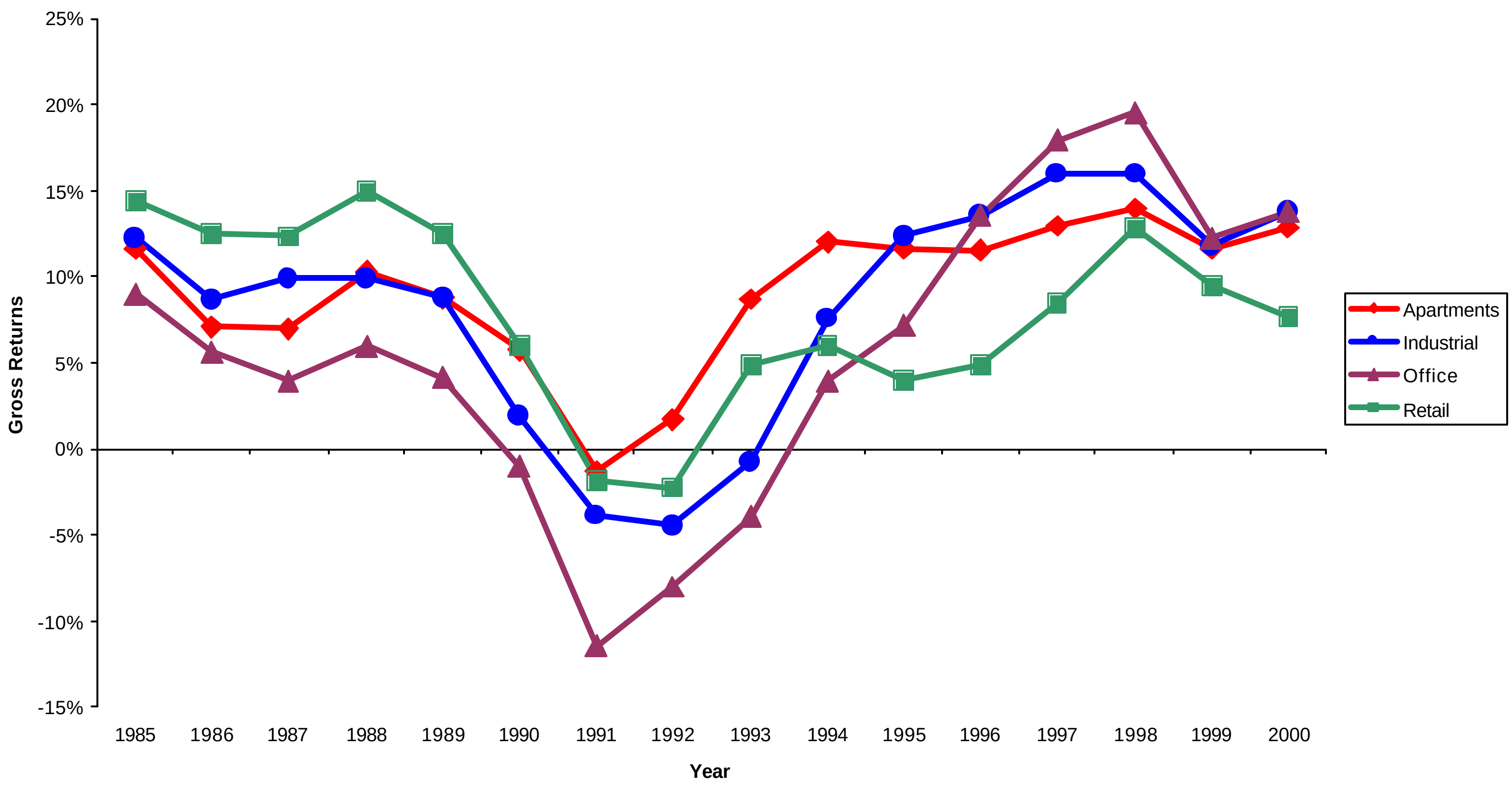
Source: Lend Lease Investment Research, *Emerging Trends in Real Estate 2001*

What is Institutional Real Estate?

Institutional grade real estate properties are defined by the following aspects:

- Location
- Tenancy
- Construction quality
- Liquidity

Historical Real Estate Performance



Rationale for Real Estate

- Access to large, diverse asset class
- Diversification benefits -- reduce total portfolio risk due to low correlation with stocks and bonds
- Potential return enhancement
- Probable hedge against inflation
- Strong cash flow component of return

Real Estate at CalSTRS

- Primary role is to provide total portfolio diversification
- Return enhancement is secondary factor
- Provides a source of cash flow
- Liquidity is not a primary consideration
- CalSTRS real estate allocation target is 5% within a range of 4% to 6%

Reasonable Real Estate Return Expectations (over next 5 years)

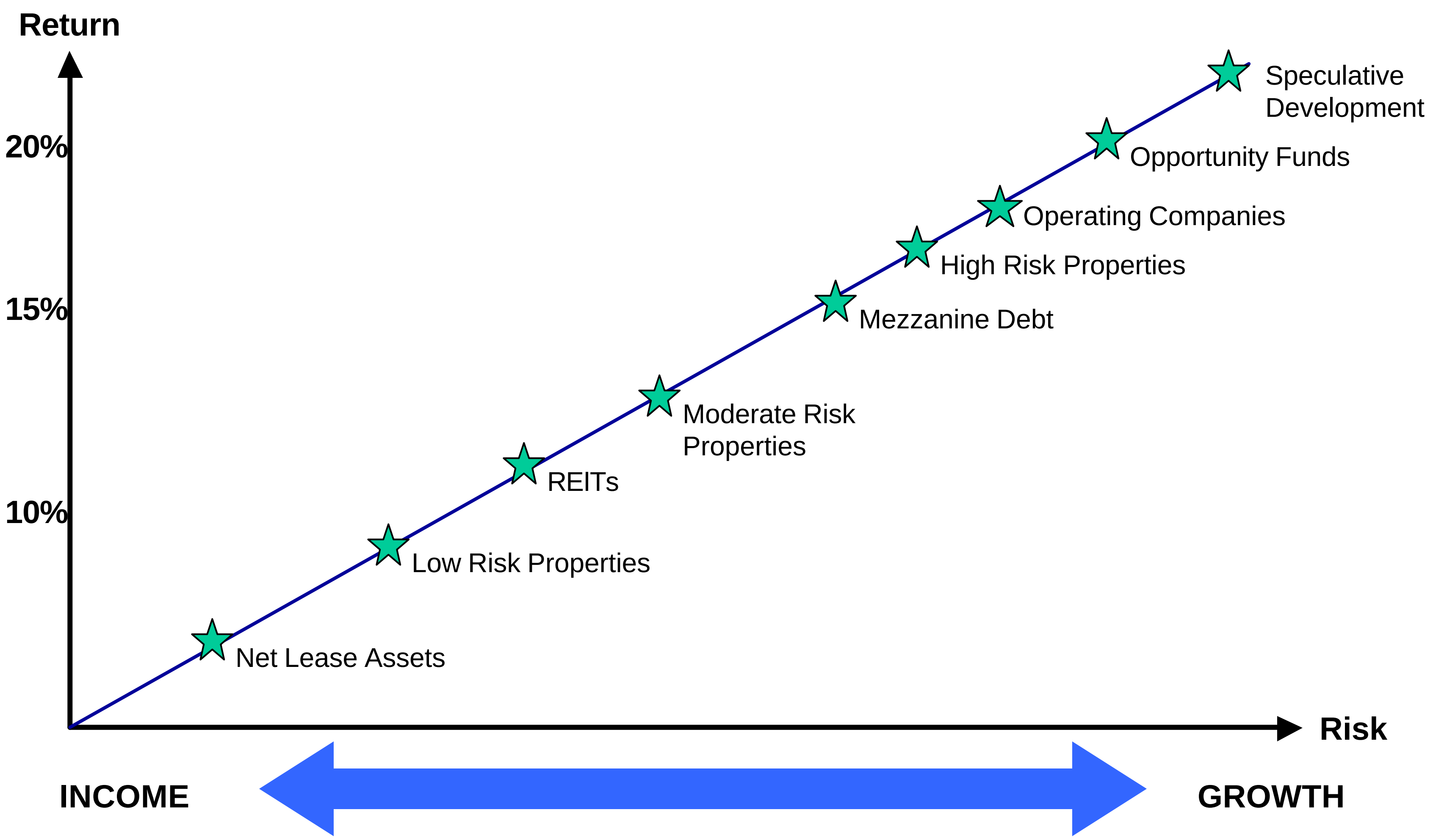
	Income Component	Growth Component	Total Return
Low Risk Real Estate	7.00%	2.00%	9.00%
High Risk Real Estate	5.00%	10.00%	15.00%
RE Asset Allocation Assumption	NA	NA	8.00%
Bonds	6.25%	0%	6.25%
Stocks	1.75%	9.00%	10.75%

Real Estate vs. Capital Markets

	1 Year	3 Year	5 Year	10 Year
NCREIF	12.0%	13.2%	12.8%	6.7%
Apartments	12.8	12.9	12.6	9.5
Industrial	13.8	13.8	14.2	7.9
Office	13.8	15.1	15.4	5.9
Retail	7.7	10.0	8.7	5.3
NAREIT Equity	26.4	-0.2	10.1	13.6
S&P 500	-9.2	12.3	18.4	17.5
Lehman Aggregate	11.9	6.2	6.2	8.0
CPI	3.4	2.6	2.5	2.7

*** Results as of December 31, 2000**

Risk-Return Expectations of Real Estate Programs



Non-Diversifiable Risks in Real Estate

- Market Cycle Risk

  Real estate is a cyclical asset class and is sensitive to capital flows

- Management Risk

  Real estate is management intensive; must find quality teams to maximize value at the property level

- Asset Risk

  Location, quality and purchase price are important factors; “can’t manage out of a bad buy”

Diversifiable Risks in Real Estate

- Illiquid and “local” nature of real estate.
- Potential deferral of current income due to leverage, rehab/development activities and high vacancy rates.
- Business risks associated with real estate operating companies and specialized or management intensive investments.
- Loss of control, such as in commingled real estate funds, REITs and limited partnerships.
- Investment structures which do not promote management accountability and alignment of interests.
- International real estate - taxes, currency, political risks, etc.

Real Estate Market Overview

- US real estate market appears to be approaching cyclical high.
- Supply and demand in balance in most major cities.
- Recession will negatively affect real estate market.
- Staggered leases help smooth returns and protect investments from large swings in returns, both positive and negative.
- Return expectations generally falling for real estate.

GLOSSARY of REAL ESTATE TERMS

Advisor – A company that, by contractual agreement, provides property investment opportunities and/or property asset management services.

Appraisal – An estimate or opinion of market value.

Appreciation – The percentage change in the market value of a property or portfolio over the period of analysis.

Asset Management – The various disciplines involved with managing real property assets from the time of investment through the time of disposition. Proper asset management plans and policies include requirements for operating and capital budgets; property management; leasing; physical property analysis; operational and financial reporting; appraisal; audits; accounting policies; and asset disposition plans (hold/sell analyses).

Benchmark – An index derived from database information, which allows for comparative performance evaluation within an asset class.

Capital Improvements – Expenditures that cure or arrest deterioration of property or add new improvements to prolong its life.

Co-investment – Investments where the management organization has a capital investment and ownership share.

Commingled Fund – A term applied to all open-end and closed-end pooled investment vehicles designed for institutional tax-exempt investors. A commingled fund may be organized as a group trust, partnership, corporation, insurance company separate account or other multiple ownership entity.

> **Open-end Fund** – A commingled fund with no finite life, that allows continuous entry and exit of investors, and typically engages in ongoing investment purchases and sale activities.
>
> **Closed-end Fund** – A commingled fund with a stated termination date, with few or no additional investors after the initial formation of the fund. Closed-end funds typically purchase a portfolio of properties to hold for the duration of the fund and, as sales occur, typically do not reinvest the sales proceeds.

Discretion – The level of authority of an advisor over the investment and management or a client's capital once that capital is allocated to the advisor.

Direct Investment – An investment in which CalSTRS has a direct ownership interest in a property or group of properties.

Fair Market Value – The highest price a property would bring if exposed for sale in the open market by a willing seller to a willing buyer with both parties being fully informed of all the uses and purposes to which the property is reasonably adaptable and available.

Ground Lease – A lease of land only, not including any improvements on the property.

Income – The component of return derived from property or portfolio operations during the period of analysis.

Internal Rate of Return (IRR) – The actual (or projected) dollar-weighted holding period return produced by an asset, calculated with consideration for all items of cash in and cash out.

Joint Venture – An investment structure wherein differing and often disproportionate ownership interests are acquired by the individual venture partners.

Limited Partnership – A partnership with both general and limited partners in which the general partner manages the business and assumes full liability for the partnership obligations with the liability of the limited partners generally restricted to their capital contributions.

Mezzanine Financing – Somewhere between equity and debt. Mezzanine capital is that piece of the capital structure that has senior debt (or a first mortgage) above it (up to about 50 or 60 percent of value) and equity below it (about 15 to 30 percent). Usually it has an LTV ratio of 70 to 85 percent.

NCREIF Index – National Council of Real Estate Investment Fiduciaries Index; a property-level performance benchmark for institutionally owned real estate, calculated on a quarterly basis.

Net Operating Income – Rental and other income of a property, less operating expenses but before the deduction of capital expenditures and debt service.

Operating Company – Also referred to as a Real Estate Operating Company (REOC). A company designed to manage and/or develop real estate assets.

Opportunistic – A phrase characterizing investment in underperforming and/or undermanaged assets based on the expectation of near-term increases in cash flow and value.

Property Management – The various functions that are performed at the property level in order to assure timely collection of rents, payment of expenses and supervision of on-site activities.

Real Rate of Return – Yield to the investor after adjusting for inflation (typically determined by the Consumer Price Index).

Speculative Development – Development of a property without a tenant committed to occupy the building.

Risk – The volatility of return. CalSTRS defines real estate risk as either low, moderate or high. Examples are:

Low Risk –
– Expected real rate of return of up to 6% (after inflation)
– Traditional property types (industrial, office, retail, and apartments)
– Substantially leased at acquisition (higher than 90% leased)
– No leverage on the property
– Cash flow from property is the largest component of return
– Properties located in large and diverse geographic areas in the U.S.

Moderate Risk –
– Expected real rates of return between 6% to 12% (after inflation)
– Traditional and non-traditional property types. Non-traditional property types may include, but are not limited to, timber, hotels, senior housing, and mini-storage.
– Partially leased at acquisition (higher than 50%)
– Moderate leverage (up to 50% loan to value)
– May be vacant or construction related (i.e. new development and redevelopment) if the leasing requirement stated above is in place at funding.
– Cash flow and appreciation are both large components of future value
– Geographically concentrated within the U.S.

High Risk –
– Expected real rate of return higher than 12% (after inflation)
– Traditional and non-traditional property types. Non-traditional property types may include, but are not limited to, timber, hotels, senior housing, and mini-storage.
– May be vacant or construction related (includes new development and redevelopment)
– Moderate to high leverage (between 50% to 90% loan to value)
– Appreciation is the largest component of future value
– Geographically concentrated; potentially international locations

Total Return – The sum of the income and appreciation returns.

Value-Added – A phrase commonly used by advisors to describe a management approach to a property with the connotation that their skills will add value which otherwise would not be realized.